

INTEGRATED THREE PHASE SEPARATOR

ABSTRACT OF THE DISCLOSURE

An integrated three phase separator for separation of natural gas, hydrocarbon liquids, and water or brine. The separator includes a cylindrical vertical separation unit having a closed top and an opposed, open bottom. A cylindrical horizontal separation unit has a pair of opposed ends, a first, closed end and a second, open end. A tubular elbow connection includes a pair of ends, one end
5 connected to the open bottom of the vertical separation unit and another end connected to the open end of the horizontal separation unit so that the vertical separation unit and horizontal separation unit are in fluid connection with each other. A metering plate within the tubular elbow connection retains natural gas in the horizontal unit while permitting gentle release of liquid into the horizontal unit.